

NEW MEXICO WATER FACTSHEET

Cibola County

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SOUTHWEST ENVIRONMENTAL FINANCE CENTER

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Water in New Mexico

One of New Mexico's biggest challenges is water scarcity. New Mexico has the lowest water to land ratio of all 50 states (1), and climate change is only expected to intensify our water challenges. Water quality is also threatened by contaminants both artificial and natural. Arsenic, uranium, nitrate, fluoride, and bacteria are among the most problematic contaminants in the state (2). New Mexico surface water sources consist of six major river basins:



NMBGMR Aquifer Regions (6)

Arkansas-White-Red, Lower Colorado, Pecos, Rio Grande, Texas Gulf, and Upper Colorado (3). Despite the presence of numerous river basins, 78% of New Mexicans rely on groundwater for their drinking water (3). The <u>New Mexico Environment Department (NMED)</u> is responsible for managing water infrastructure systems and addressing water quality issues throughout the state (except on tribal lands), including the implementation and enforcement of the federal Safe Drinking Water Act (2). The Office of the State Engineer has authority over the supervision, measurement, appropriation, and distribution of all surface water and groundwater in New Mexico, including streams and rivers that cross state lines (4). The New Mexico Interstate Stream Commission investigates, protects, conserves, and develops New Mexico's waters including both interstate and intrastate stream systems (5). The New Mexico Bureau of Geology and Mineral Recourses Hydrology Programs (6) provide an independent geologic mapping collaborative hydrologic research statewide, including the aquifer mapping program (left).

Water in Cibola County

With a population of 27,211 and an area of 4,542 square miles (7), Cibola County is home to the Pueblo of Acoma, the Pueblo of Laguna and the Ramah Navajo Chapter. Cibola County relies mostly on groundwater. The most productive aquifers in the county include Quaternary deposits, sandstones in the Mesaverde Group, the Dakota-Zuni-Bluff aquifer, the Westwater Canyon aquifer, the Todilto- Entrada aquifer, sandstone beds in the Chinle Formation, and the San Andres-Glorieta aquifer. Well yields range from 5 to 1,110 gallons per minute (8). Most of the population resides in the Milan/Grants area, with the two largest public water systems operated being Grants Domestic Water System and the Milan Community Water System. Surface water sources in the county are limited. The largest water body is Bluewater Lake, located on the Cibola/McKinley County line. Formed by the Bluewater Dam, the lake can impound 38,500 acre-feet of water used for irrigation and recreational purposes. Due to its proximity to the Continental Divide, surface water flows into Bluewater Lake are limited and the lake is not seen as a viable source for municipal water (9).



Frequently Asked Questions

What are the water challenges faced by Cibola County?

- The EPA has designated two superfund sites (locations polluted with hazardous materials) in Cibola county: the Homestake Mine, which mined uranium from 1950s through the 1990s, and the Grants Chlorinated Solvents Site, which was contaminated by a dry cleaning facility. Both of these sites pose a water quality risk for the county (10).
- Heavy reliance on groundwater and slow recharge of aquifers leads to most wells losing production as the water pressure in an aquifer goes down. Consequently, many communities have had to periodically relocate their wellfields, or extend their groundwater drilling to everdeeper strata of saturated soil (11).



How is Cibola moving towards sustainable water management?

In Cibola County's 2015 Comprehensive Plan (9), a number of strategies were suggested for water conservation:

- Site development standards to conserve water and minimize water loss
- Water harvesting and storage
- Low water use landscaping and plant materials
- Nonagricultural residential and commercial water use limitations
- Recycling and reuse of water

Additionally, the County introduced a Water Conservation Ordinance in 2017 that prohibits certain water-wasting actions. The ordinance also included a domestic well use metering program (12).

What is the 50-Year Water Action Plan?



The New Mexico Office of the Governor has developed a 50-year water action plan to address the state's water challenges now and in the future. Over the next 50 years, it is predicted that New Mexico will have about 25% less water available in rivers and aquifers (13). Additionally, it is expected that Climate Change will make the state hotter and dryer, change precipitation patterns, and increase occurrence of fires, flooding, and drought. The plan proposes a series of actions to secure New Mexico's water supply through water conservation, new water supplies, and water and watershed protection.

Additional Resources

Statewide

- 1) <u>NM 50-year water plan</u>
- 2) 2018 New Mexico State Water Plan Policies
- 3) 2018 New Mexico State Water Plan Technical Report
- 4) 2018 New Mexico State Water Plan Legal Landmarks

Regional

- 1) <u>Regional Water Planning</u>
- 2) Northwest New Mexico Council of Governments

- 5) New Mexico Water Data
- 6) New Mexico Environment Department
- 7) <u>Climate Change in NM Over the Next 50 Years:</u>
- Impacts on Water Resources

Countywide

- 1) County Economic Summaries & Data Profiles
- 2) <u>Cibola County</u>

References: (1) Drought in New Mexico (2) Water Resources & Management – NMED (3) New Mexico Water Use By Categories 2015 (4) Water Planning in New Mexico – OSE (5) Interstate Stream Comission (6) NM Bureau of Geology and Mineral Resources (7) Cibola County – US Census (8) Hydrogeology of Cibola County – USGS (9) Cibola County Comprehensive Plan 2015 (10) Superfund Sites in NM (11) Cibola/McKinley Regional Water Plan – OSE (12) Water Conservation Ordinance 2017 (13) 50-year Water Action Plan